

Appln No. 10/578,645
Amdt date September 26, 2008
Reply to Office action of July 10, 2008

REMARKS/ARGUMENTS

Claims 1–11 remain in the present application, of which claim 1 is independent. Each of claims 1–11 has been amended to remove reference abbreviations and to correct some minor clerical errors. No new matter has been added. Applicants respectfully request reconsideration and allowance of claims 1–11.

Claim Rejections under 35 USC § 103

Claims 1–11 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kang (U.S. Patent Application Publication No. 2004/0164371) in view of O'Brien et al. (U.S. Patent Application Publication No. 2004/0048410), hereinafter O'Brien. Applicants respectfully traverse.

Applicants first note that the instant application is related to a semiconductor device with a resonator and a method of manufacturing the same. Kang is directed to an unrelated thermal switch. O'Brien is directed to an unrelated anchor for a MEMS device. Both Kang and O'Brien have a different structure and function wholly unrelated to those of the claimed invention. One skilled in the art, upon reviewing Kang and O'Brien, would have no reason to apply the teachings of the thermal switch and anchor in any combination to arrive at an embodiment of the claimed invention.

Clearly, as both of the disclosures of the cited references are essentially unrelated to the instant application, numerous elements of each and every claim are not taught, described, or suggested in Kang or O'Brien. Only a few examples are provided below for brevity.

In rejecting claim 1, on page 3 of the Office action, the Examiner appears to allege that Kang discloses, teaches, or suggests the limitation, “etching a hole in the substrate” in its ¶ [0019] by writing,

Kang teaches forming a trench by an oxide layer applied to the silicon substrate 100 and etched according to a predefined mask. The predefined mask allows removal of oxide in order to create insulating mounts 106 for the mounting of a beam.”

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Applicants respectfully traverse, noting that Kang does not disclose, teach, or suggest etching a hole in the substrate, as claimed, but only teaches etching the oxide, apparently without affecting the substrate. See Kang FIG. 4B and ¶ [0019].

Thus, each of the further limitations of claim 1 dealing with the “hole,” for example, “a first doping zone inside and around the hole” and “a second doping zone fully covering the hole” can not be taught, described, or suggested in Kang, as there is no hole in the substrate.

Moreover, because neither of the cited references teaches or suggests a related device or method, neither reference teaches, discloses, or suggests “an element forming the resonator configured to vibrate between the two electrodes,” as claimed in claim 1. The Examiner cites to ¶¶ [0023] and [0018] as allegedly teaching this element; however, the “beam” of the thermal switch taught in Kang is apparently not configured to vibrate between two electrodes (which are also not taught or suggested in Kang), and is unrelated to the resonator as claimed.

For at least these reasons, claim 1 would not have been obvious over Kang, even in view of O’Brien, at the time the invention was made. Therefore, Applicants request that the rejection of claim 1 be withdrawn and that this claim be allowed.

Because claims 2–11 depend, directly or indirectly, from claim 1, they each incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish these claims over the art of record. Therefore, Applicants request that the rejection of claims 2–11 be withdrawn and that these claims be allowed.

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Concluding Remarks

In view of the foregoing amendments and remarks, Applicant earnestly solicits a timely issuance of a Notice of Allowance with claims 1–11. If there are any remaining issues that can be addressed over the telephone, the Examiner is cordially invited to call Applicant's attorney at the number listed below.

Respectfully submitted,
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